

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>WO 800.146-</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/NL 00/ 00523</b>	International filing date (day/month/year) <b>24/07/2000</b>	(Earliest) Priority Date (day/month/year) <b>26/08/1999</b>
Applicant  <b>INCOTEC INTERNATIONAL B.V.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

**PROTECTION OF GERMINATING SEED AND PILLS CONTAINING PESTICIDES**

5. With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.



None of the figures.

## INTERNATIONAL SEARCH REPORT

International Application No

T/NL 00/00523

A. CLASSIFICATION OF SUBJECT MATTER  
 IPC 7 A01N25/26 A01N25/00 A01C1/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, PAJ, EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CA 1 143 651 A (FISONS LTD) 29 March 1983 (1983-03-29) page 1, line 7 - line 12	6
Y	page 2, line 13 - line 23 page 3, line 8 - line 15 page 4, line 16 - line 23 page 7, line 21 - page 8, line 1 ---	1-5
X	DE 43 43 176 A (BASF AG) 22 June 1995 (1995-06-22) page 2, line 41 - line 56	6
Y	page 3, line 60 - line 61 page 5, line 14 - line 15 page 8, line 19 - line 35 ---	1-5
	--- -/--	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

\* Special categories of cited documents:

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*G\* document member of the same patent family

Date of the actual completion of the international search

23 November 2000

Date of mailing of the international search report

04/12/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
 NL - 2280 HV Rijswijk  
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
 Fax: (+31-70) 340-3016

Authorized officer

Lamers, W

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/NL 00/00523

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 044 518 A (SAKAUE OSAMU ET AL) 3 September 1991 (1991-09-03) column 2, line 60 - line 67 ---	1-5
A	WO 88 05625 A (HEID AG MASCHF) 11 August 1988 (1988-08-11) page 1, paragraph 2 page 1, paragraph 4 -----	1-6

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

T/NL 00/00523

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
CA 1143651	A	29-03-1983	NONE	
DE 4343176	A	22-06-1995	AT 172356 T	15-11-1998
			AU 691856 B	28-05-1998
			AU 1242695 A	03-07-1995
			AU 1273595 A	03-07-1995
			BR 9408345 A	19-08-1997
			BR 9408347 A	19-08-1997
			CA 2178655 A	22-06-1995
			CA 2179181 A	22-06-1995
			CN 1141577 A	29-01-1997
			CN 1141578 A	29-01-1997
			CZ 9601773 A	16-10-1996
			CZ 9601774 A	16-10-1996
			DE 59407155 D	26-11-1998
			DK 734204 T	28-06-1999
			WO 9516349 A	22-06-1995
			WO 9516350 A	22-06-1995
			EP 0734204 A	02-10-1996
			EP 0734205 A	02-10-1996
			ES 2123229 T	01-01-1999
			HU 74767 A, B	28-02-1997
			JP 9506598 T	30-06-1997
			MD 960237 A	31-08-1997
			PL 314978 A	30-09-1996
			SK 74696 A	04-12-1996
			ZA 9410001 A	18-06-1996
US 5044518	A	03-09-1991	JP 2090552 C	18-09-1996
			JP 2261306 A	24-10-1990
			JP 8013206 B	14-02-1996
			NL 9000675 A	16-10-1990
			NL 9500643 A	01-09-1995
WO 8805625	A	11-08-1988	AT 389618 B	10-01-1990
			AT 16687 A	15-06-1989
			DD 267407 A	03-05-1989
			DK 476188 A	20-09-1988
			EP 0299999 A	25-01-1989
			FI 884277 A	16-09-1988
			JP 1502649 T	14-09-1989
			SU 1718704 A	07-03-1992



## REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

RECORD COPY

For Receiving Office use only

International Application No.

PCT/NL 00 / 00 5 2 3

International Filing Date

24 JUL 2000

(24. 07. 00)

BUREAU VOOR DE INDUSTRIËLE EIGENDOM  
P.C.T. INTERNATIONAL APPLICATION

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference

(if desired) (12 characters maximum) WO 800.146-

## Box No. I TITLE OF INVENTION

A process for the protection of germinating seed and pesticide containing pill

## Box No. II APPLICANT

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

Incotec International B.V.  
Westende 107  
1601 BL ENKHUIZEN  
The Netherlands

☐ This person is also inventor.

Telephone No.

Facsimile No.

Teleprinter No.

State (that is, country) of nationality:

NL

State (that is, country) of residence:

NL

This person is applicant for the purposes of:

☐ all designated States☒ all designated States except the United States of America☐ the United States of America only☐ the States indicated in the Supplemental Box

## Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

Legro, Robert Jean  
De Gouw 6  
1602 DN ENKHUIZEN  
The Netherlands

This person is:

☐ applicant only☒ applicant and inventor☐ inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:

NL

State (that is, country) of residence:

NL

This person is applicant for the purposes of:

☐ all designated States☐ all designated States except the United States of America☒ the United States of America only☐ the States indicated in the Supplemental Box☐ Further applicants and/or (further) inventors are indicated on a continuation sheet.

## Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:

☒ agent☐ common representative

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

Kupecz, Arpád  
OCTROOIBUREAU LOS EN STIGTER B.V.  
Weteringschans 96  
1017 XS AMSTERDAM  
The Netherlands

Telephone No.

(31)20 6236832

Facsimile No.

(31)20 6260007

Teleprinter No.

☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

## Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

*If none of the following sub-boxes is used, this sheet should not be included in the request.*

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

Honkoop, Sijbert  
Maasdijk 182a  
2676 LC MAASDIJK  
The Netherlands

This person is:

- ☐ applicant only  
☒ applicant and inventor  
☐ inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:  
NL

State (that is, country) of residence:  
NL

This person is applicant for the purposes of:

- ☐ all designated States ☐ all designated States except the United States of America ☒ the United States of America only ☐ the States indicated in the Supplemental Box

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

- ☐ applicant only  
☐ applicant and inventor  
☐ inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant for the purposes of:

- ☐ all designated States ☐ all designated States except the United States of America ☐ the United States of America only ☐ the States indicated in the Supplemental Box

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

- ☐ applicant only  
☐ applicant and inventor  
☐ inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant for the purposes of:

- ☐ all designated States ☐ all designated States except the United States of America ☐ the United States of America only ☐ the States indicated in the Supplemental Box

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

- ☐ applicant only  
☐ applicant and inventor  
☐ inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant for the purposes of:

- ☐ all designated States ☐ all designated States except the United States of America ☐ the United States of America only ☐ the States indicated in the Supplemental Box

☐ Further applicants and/or (further) inventors are indicated on another continuation sheet.

**Box No.V DESIGNATION OF STATES**

The following designations are hereby made under Rule 4.9(a) (mark the applicable check-boxes; at least one must be marked):

**Regional Patent**

- ☒ **AP ARIPO Patent:** GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, SD Sudan, SL Sierra Leone, SZ Swaziland, TZ United Republic of Tanzania, UG Uganda, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT
- ☒ **EA Eurasian Patent:** AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT
- ☒ **EP European Patent:** AT Austria, BE Belgium, CH and LI Switzerland and Liechtenstein, CY Cyprus, DE Germany, DK Denmark, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, SE Sweden, and any other State which is a Contracting State of the European Patent Convention and of the PCT
- ☒ **OA OAPI Patent:** BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, GW Guinea-Bissau, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other kind of protection or treatment desired, specify on dotted line)

**National Patent (if other kind of protection or treatment desired, specify on dotted line):**

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> <b>AE</b> United Arab Emirates                  | <input checked="" type="checkbox"/> <b>LR</b> Liberia                                   |
| <input checked="" type="checkbox"/> <b>AL</b> Albania                               | <input checked="" type="checkbox"/> <b>LS</b> Lesotho                                   |
| <input checked="" type="checkbox"/> <b>AM</b> Armenia                               | <input checked="" type="checkbox"/> <b>LT</b> Lithuania                                 |
| <input checked="" type="checkbox"/> <b>AT</b> Austria                               | <input checked="" type="checkbox"/> <b>LU</b> Luxembourg                                |
| <input checked="" type="checkbox"/> <b>AU</b> Australia                             | <input checked="" type="checkbox"/> <b>LV</b> Latvia                                    |
| <input checked="" type="checkbox"/> <b>AZ</b> Azerbaijan                            | <input checked="" type="checkbox"/> <b>MA</b> Morocco                                   |
| <input checked="" type="checkbox"/> <b>BA</b> Bosnia and Herzegovina                | <input checked="" type="checkbox"/> <b>MD</b> Republic of Moldova                       |
| <input checked="" type="checkbox"/> <b>BB</b> Barbados                              | <input checked="" type="checkbox"/> <b>MG</b> Madagascar                                |
| <input checked="" type="checkbox"/> <b>BG</b> Bulgaria                              | <input checked="" type="checkbox"/> <b>MK</b> The former Yugoslav Republic of Macedonia |
| <input checked="" type="checkbox"/> <b>BR</b> Brazil                                | <input checked="" type="checkbox"/> <b>MN</b> Mongolia                                  |
| <input checked="" type="checkbox"/> <b>BY</b> Belarus                               | <input checked="" type="checkbox"/> <b>MW</b> Malawi                                    |
| <input checked="" type="checkbox"/> <b>CA</b> Canada                                | <input checked="" type="checkbox"/> <b>MX</b> Mexico                                    |
| <input checked="" type="checkbox"/> <b>CH and LI</b> Switzerland and Liechtenstein  | <input checked="" type="checkbox"/> <b>NO</b> Norway                                    |
| <input checked="" type="checkbox"/> <b>CN</b> China                                 | <input checked="" type="checkbox"/> <b>NZ</b> New Zealand                               |
| <input checked="" type="checkbox"/> <b>CR</b> Costa Rica                            | <input checked="" type="checkbox"/> <b>PL</b> Poland                                    |
| <input checked="" type="checkbox"/> <b>CU</b> Cuba                                  | <input checked="" type="checkbox"/> <b>PT</b> Portugal                                  |
| <input checked="" type="checkbox"/> <b>CZ</b> Czech Republic                        | <input checked="" type="checkbox"/> <b>RO</b> Romania                                   |
| <input checked="" type="checkbox"/> <b>DE</b> Germany                               | <input checked="" type="checkbox"/> <b>RU</b> Russian Federation                        |
| <input checked="" type="checkbox"/> <b>DK</b> Denmark                               | <input checked="" type="checkbox"/> <b>SD</b> Sudan                                     |
| <input checked="" type="checkbox"/> <b>DM</b> Dominica                              | <input checked="" type="checkbox"/> <b>SE</b> Sweden                                    |
| <input checked="" type="checkbox"/> <b>EE</b> Estonia                               | <input checked="" type="checkbox"/> <b>SG</b> Singapore                                 |
| <input checked="" type="checkbox"/> <b>ES</b> Spain                                 | <input checked="" type="checkbox"/> <b>SI</b> Slovenia                                  |
| <input checked="" type="checkbox"/> <b>FI</b> Finland                               | <input checked="" type="checkbox"/> <b>SK</b> Slovakia                                  |
| <input checked="" type="checkbox"/> <b>GB</b> United Kingdom                        | <input checked="" type="checkbox"/> <b>SL</b> Sierra Leone                              |
| <input checked="" type="checkbox"/> <b>GD</b> Grenada                               | <input checked="" type="checkbox"/> <b>TJ</b> Tajikistan                                |
| <input checked="" type="checkbox"/> <b>GE</b> Georgia                               | <input checked="" type="checkbox"/> <b>TM</b> Turkmenistan                              |
| <input checked="" type="checkbox"/> <b>GH</b> Ghana                                 | <input checked="" type="checkbox"/> <b>TR</b> Turkey                                    |
| <input checked="" type="checkbox"/> <b>GM</b> Gambia                                | <input checked="" type="checkbox"/> <b>TT</b> Trinidad and Tobago                       |
| <input checked="" type="checkbox"/> <b>HR</b> Croatia                               | <input checked="" type="checkbox"/> <b>TZ</b> United Republic of Tanzania               |
| <input checked="" type="checkbox"/> <b>HU</b> Hungary                               | <input checked="" type="checkbox"/> <b>UA</b> Ukraine                                   |
| <input checked="" type="checkbox"/> <b>ID</b> Indonesia                             | <input checked="" type="checkbox"/> <b>UG</b> Uganda                                    |
| <input checked="" type="checkbox"/> <b>IL</b> Israel                                | <input checked="" type="checkbox"/> <b>US</b> United States of America                  |
| <input checked="" type="checkbox"/> <b>IN</b> India                                 | <input checked="" type="checkbox"/> <b>UZ</b> Uzbekistan                                |
| <input checked="" type="checkbox"/> <b>IS</b> Iceland                               | <input checked="" type="checkbox"/> <b>VN</b> Viet Nam                                  |
| <input checked="" type="checkbox"/> <b>JP</b> Japan                                 | <input checked="" type="checkbox"/> <b>YU</b> Yugoslavia                                |
| <input checked="" type="checkbox"/> <b>KE</b> Kenya                                 | <input checked="" type="checkbox"/> <b>ZA</b> South Africa                              |
| <input checked="" type="checkbox"/> <b>KG</b> Kyrgyzstan                            | <input checked="" type="checkbox"/> <b>ZW</b> Zimbabwe                                  |
| <input checked="" type="checkbox"/> <b>KP</b> Democratic People's Republic of Korea |   |
| <input checked="" type="checkbox"/> <b>KR</b> Republic of Korea                     |   |
| <input checked="" type="checkbox"/> <b>KZ</b> Kazakhstan                            |   |
| <input checked="" type="checkbox"/> <b>LC</b> Saint Lucia                           |   |
| <input checked="" type="checkbox"/> <b>LK</b> Sri Lanka                             |   |

Check-boxes reserved for designating States which have become party to the PCT after issuance of this sheet:

- ☐ .....
- ☐ .....

**Precautionary Designation Statement:** In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation (including fees) must reach the receiving Office within the 15-month time limit.)

Box No. VI PRIORITY CLAIM		<input type="checkbox"/> Further priority claims are indicated in the Supplemental Box.		
Filing date of earlier application (day/month/year)	Number of earlier application	With earlier application is:		
		national application: country	regional application: regional Office	international application: receiving Office
item (1) (26-08-1999) 26 August 1999	1012918	NL		
item (2)				
item (3)				

☒ The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of the present international application is the receiving Office) identified above as item(s): 1

\* Where the earlier application is an ARIPO application, it is mandatory to indicate in the Supplemental Box at least one country party to the Paris Convention for the Protection of Industrial Property for which that earlier application was filed (Rule 4.10(b)(ii)). See Supplemental Box.

### Box No. VII INTERNATIONAL SEARCHING AUTHORITY

**Choice of International Searching Authority (ISA)**  
(if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):

ISA / NL

**Request to use results of earlier search; reference to that search** (if an earlier search has been carried out by or requested from the International Searching Authority):

Date (day/month/year)

26-08-1999

Number

SN 33787 NL

Country (or regional Office)

NL

### Box No. VIII CHECK LIST; LANGUAGE OF FILING

This international application contains the following number of sheets:

request : 4

description (excluding sequence listing part) : 7

claims : 1

abstract : 1

drawings : 3

sequence listing part of description : \_\_\_\_\_

Total number of sheets : 16

This international application is accompanied by the item(s) marked below:

1. ☒ fee calculation sheet
2. ☐ separate signed power of attorney
3. ☐ copy of general power of attorney, reference number, if any:
4. ☐ statement explaining lack of signature
5. ☐ priority document(s) identified in Box No. VI as item(s):
6. ☐ translation of international application into (language):
7. ☐ separate indications concerning deposited microorganism or other biological material
8. ☐ nucleotide and/or amino acid sequence listing in computer readable form
9. ☒ other (specify): copy of search report

Figure of the drawings which should accompany the abstract: 1

Language of filing of the international application:

### Box No. IX SIGNATURE OF APPLICANT OR AGENT

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).

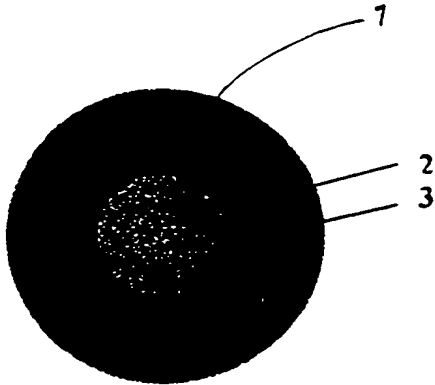
Amsterdam, July 20, 2000

  
Kupecz, Arpad

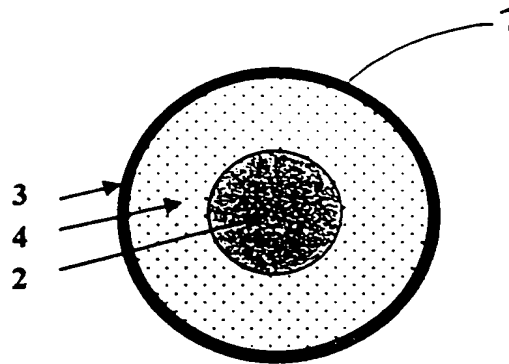
For receiving Office use only		2. Drawings: <input checked="" type="checkbox"/> received: <input type="checkbox"/> not received:
1. Date of actual receipt of the purported international application:	24 JUL 2000 (24.07.00)	
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:		
4. Date of timely receipt of the required corrections under PCT Article 11(2):		
5. International Searching Authority (if two or more are competent): ISA /	6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid.	

For International Bureau use only	
Date of receipt of the record copy by the International Bureau:	23 AUGUST 2000 (23.08.00)

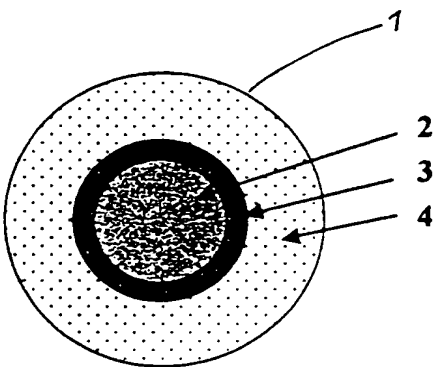




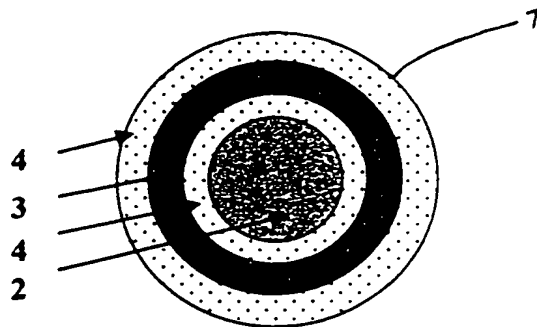
Figuur 1.



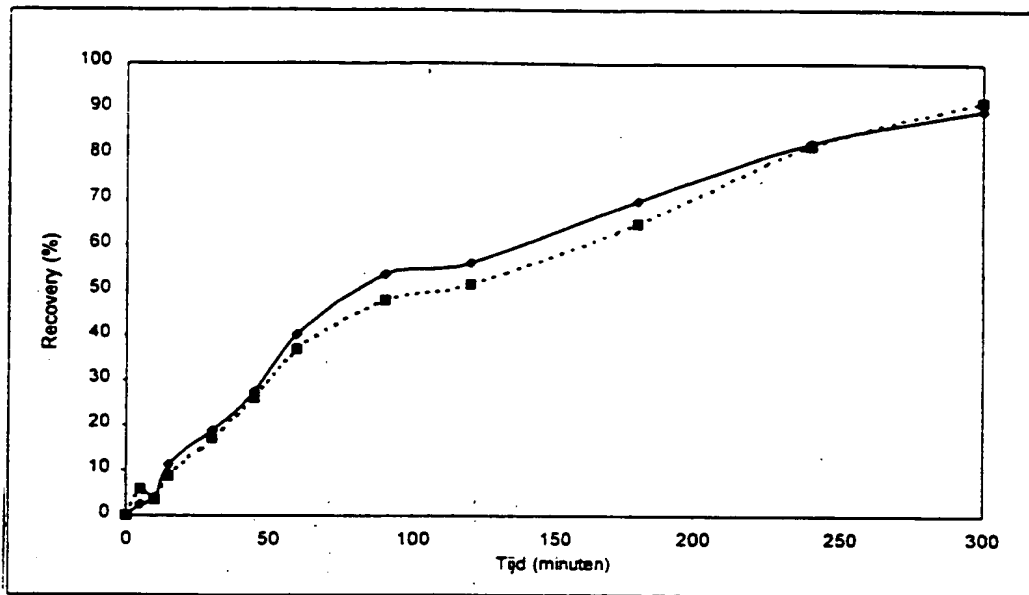
Figuur 2.



Figuur 3.



Figuur 4.



Figuur 5

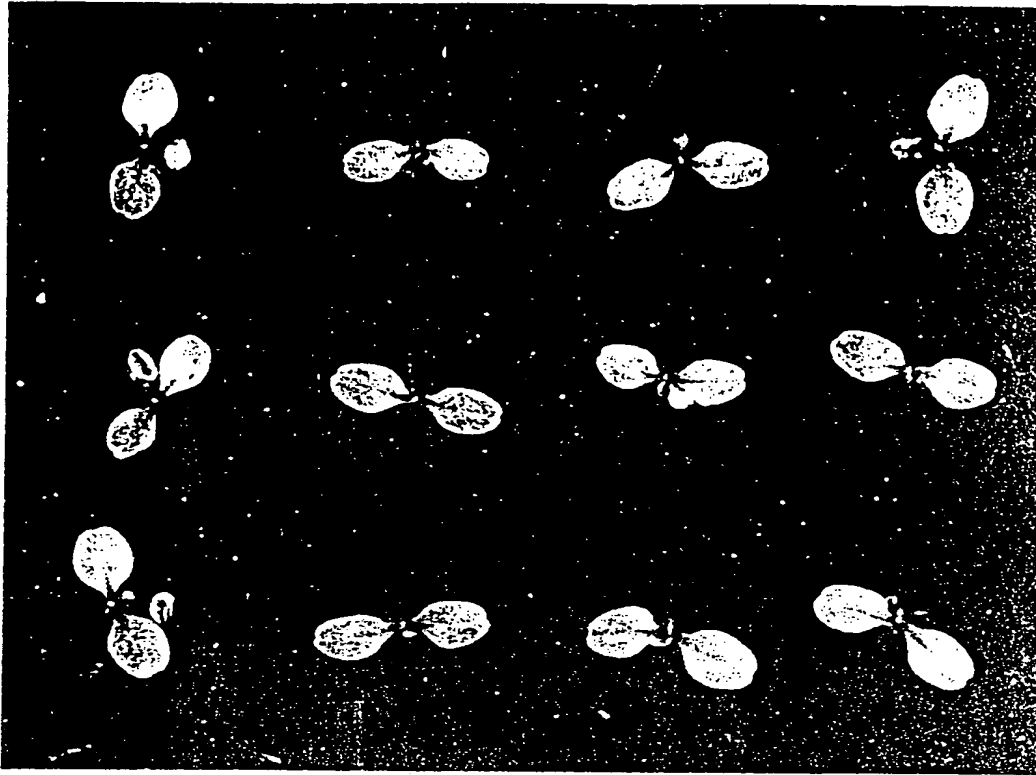


FIGURE 6

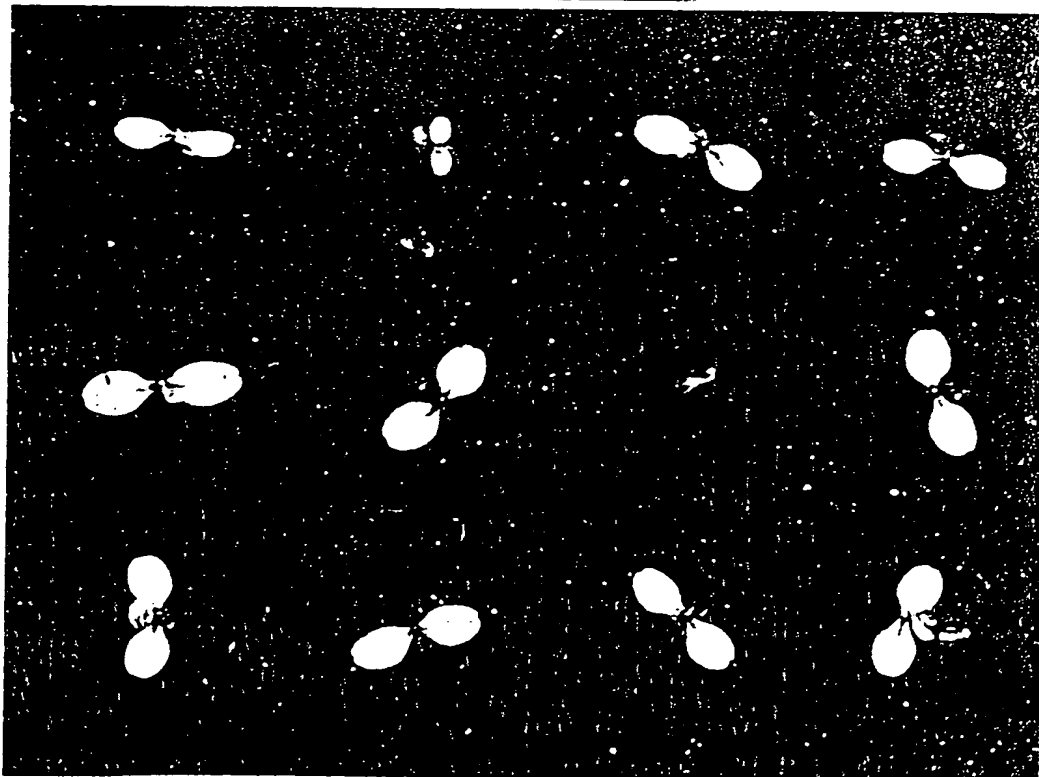


FIGURE 7

NL 43.563-Kp/D<sup>o</sup>/co

Werkwijze voor het beschermen van te ontkiemen zaad en pesticidehoudende pil

De onderhavige uitvinding heeft betrekking op een werkwijze voor het beschermen van te ontkiemen zaad met een pesticide.

Een dergelijke werkwijze is bekend uit de praktijk.

5 Gebruikelijk is, dat pesticiden, zoals bijvoorbeeld insecticiden en fungiciden, in de coatings van zaadpillen worden opgenomen.

10 Veel pesticiden leveren echter het probleem, dat ze behoorlijk fytotoxisch zijn voor het te ontkiemen zaad waar het pesticide op wordt aangebracht. Dit heeft onder meer te maken met de vaak hoge dosis van het pesticide die op het zaad moet worden aangebracht om een voldoende bescherming te geven tegen de te bestrijden plaag. Het negatieve effect kan variëren van enige vertraging in de ontkieming en opkomst van  
-15 het zaad tot abnormale kiemplanten of zelfs het niet ontkiemen van een deel van het zaad. De mate waarin een dergelijk negatief effect op de ontkieming optreedt is natuurlijk afhankelijk van het soort pesticide, de zaadsoort, rasgevoelighed, vitaliteit van de partij zaad en de condities waaronder  
20 het behandelde zaad zich bevindt tijdens de kieming en opkomst.

Door het zaad te bekleden met een coating kan de negatieve invloed van het pesticide op het zaad enigszins worden beperkt. Het zaad kan bijvoorbeeld met een naar ver-  
25 houding dikke laag inert materiaal worden omhuld (pilleren), waarop vervolgens het pesticide wordt aangebracht, zodat het pesticide niet in direct contact is met het zaad.

Een verder nadeel van het gebruik van de bekende pillen is echter, dat bij hoge toe te passen doses een dergelijke aangebrachte coating onvoldoende bescherming biedt tegen de eventuele fytotoxische werking van het pesticide. Verder zullen door de hoge doses de fysisch-chemische eigenschappen van de coating aanzienlijk worden gewijzigd, waardoor indirect een negatief effect ontstaat door verandering  
35 van de zuurstof/water-huishouding in de coating.

De onderhavige uitvinding heeft als doel deze nadelen te vermijden. Dit doel wordt volgens de onderhavige uitvinding bereikt doordat zaadhoudende pillen en pesticidehoudende pillen als afzonderlijke pillen gelijktijdig worden  
5 uitgezaaid.

Doordat zaadkiem en pesticide in afzonderlijke pillen zijn opgenomen, kan het zaadje in de zaadhoudende pil eerst kiemen en uitgroeien voordat het in contact komt met het pesticide dat uit een andere pil zal vrijkomen. In het  
10 meest gevoelige stadium, het moment van kieming, is er aldus nog geen contact met het pesticide.

Opgemerkt wordt dat in de onderhavige aanvraag onder pesticidehoudende pillen tevens gefilmcoate inerte kernen (zie voorbeeld 3) worden begrepen.

15 Volgens een voorkeursuitvoeringsvorm volgens de onderhavige uitvinding hebben de pesticidehoudende pillen in hoofdzaak dezelfde vorm en afmeting als de zaadhoudende pillen.

Hierdoor kan, aangezien de pesticidehoudende pillen  
20 een afmeting hebben die in hoofdzaak gelijk is aan die van de zaadhoudende pillen, met behulp van precisie-zaaitechnieken per plant één pesticidehoudende pil worden gedoseerd. Hierdoor worden op eenvoudige wijze onder- en overdoses vermeden.

Volgens een voorkeursuitvoeringsvorm van de werkwijze volgens de uitvinding, bevatten de pesticidehoudende pillen een dosis pesticide die voldoende is voor één zaadkiem.  
25

Hierdoor wordt verspilling van het kostbare pesticide voorkomen, en bovendien wordt het milieu aldus zo min mogelijk belast.

30 Volgens een ander aspect van de werkwijze volgens de onderhavige uitvinding bevatten de pesticidehoudende pillen een vulstof.

Door de juiste dosis pesticide aan te vullen met een passende hoeveelheid vulstof kan de afmeting van de pesticidehoudende pil worden aangepast aan die van de zaadhoudende pil.  
35

Volgens een gunstige uitvoeringsvorm volgens de uitvinding hebben de pesticidehoudende en zaadhoudende pillen een in hoofdzaak uniforme diameter in het bereik van 0,5 - 5 mm.

De uitvinding heeft tevens betrekking op een pesticidehoudende pil ten gebruike in combinatie met een zaadhoudende pil.

Door het uitzaaien van pillen met dezelfde vorm en afmeting wordt een optimale verzaaibaarheid met behulp van precisiezaaimachines verkregen.

Als pesticide in de pesticidehoudende pil volgens de uitvinding kunnen bijvoorbeeld acariciden of miticiden, bactericiden, fungiciden, herbiciden, insecticiden (bijvoorbeeld Rovral® (Rhone Poulenc), Gigant® (DowElanco), Gaucho® (Bayer), Oncol® (Luxan), Mundial® (Rhone Poulenc), Birlane® (Cyanamid), etc.), mollusciciden, nematociden en rodenticiden worden gebruikt, maar ook groeihormonen, voedingsstoffen, kiemstimulantia, micro-organismen, chemosterilantia, feromonen, biologisch preparaten, etc.

Als vulstof kunnen alle in de techniek gebruikelijke vulmiddelen worden gebruikt, zoals klei, perlieten, diatomieten, kwarts, cellulose, vermiculiet, mica, etc.

Uiteraard kan de pesticidehoudende pil volgens de uitvinding in elke gewenste vorm en afmeting worden uitgevoerd, afhankelijk van de tegelijk ermee uit te zaaien zaadhoudende pillen.

De kern van de pesticidehoudende pil volgens de uitvinding kan inert zijn, zoals bijvoorbeeld een glaskogel, perliet, kunststof, puimsteen of elk ander passend materiaal. Eventueel kan echter ook dood, niet meer ontkiemend zaad (bijvoorbeeld dood gemaakt middels hittebehandeling, gammastraling, microwave etc.) of een ander afbreekbaar organisch materiaal worden gebruikt dat geen nadelig effect op de zaadontkieming heeft.

Aan de pesticidehoudende pil volgens de uitvinding kan eventueel een middel worden toegevoegd voor het regelen van de afgifte van het pesticide.

Hierna zal de onderhavige uitvinding nader worden toegelicht aan de hand van enkele uitvoeringsvoorbeelden. Hierbij tonen figuur 1-4 alternatieve uitvoeringsvormen van een pesticidehoudende pil volgens de uitvinding.

Figuur 1 toont een pesticidehoudende pil 1 met een kern 2, welke kern 2 is omgeven door actief materiaal 3.

Figuur 2 toont een pesticidehoudende pil 1 met een kern 2, welke kern 2 is omgeven door een vulstof 4 voorzien van een coating van actief materiaal 3.

Figuur 3 toont een pesticidehoudende pil 1 met een kern 2, welke kern 2 is omgeven door een actief materiaal 3 voorzien van een coating van vulstof 4.

Figuur 4 toont een pesticidehoudende pil 1 met een kern 2, welke kern 2 is omgeven door achtereenvolgens een laag vulstof 4, een laag actief materiaal 3 en een coating van vulstof 4.

Uiteraard kunnen de pesticidehoudende pillen elke willekeurige vorm hebben, zolang deze vorm maar in hoofdzaak overeenkomt met de vorm van de zaadpillen.

Figuur 5 toont een grafiek die het vrijkomen van actieve ingrediënt uit een (levend) zaadhoudende pil volgens de stand der techniek (doorgetrokken lijn) weergeeft, vergeleken met een pil volgens de uitvinding (stippellijn).

Figuur 6 toont gekiemde sla-zaailingen afkomstig uit zaadhoudende pillen en pesticidehoudende pillen die afzonderlijk, gelijktijdig zijn gezaaid (onderhavige uitvinding).

Figuur 7 toont gekiemde sla-zaailingen afkomstig uit pillen die zowel zaad als pesticide bevatten (stand der techniek).

Hierna zal de uitvinding worden toegelicht aan de hand van een aantal niet-beperkende voorbeelden.

#### Voorbeeld 1

Een batch van 1 miljoen slazaden (*Lactuca sativa*) met een duizend korrel gewicht van 1,10 g werd door middel van gammastraling (40 kGy) dood gemaakt. De batch werd in een standaard pilleerpan (Vingerling's Machinefabriek B.V. te Rotterdam, Nederland) van 100 cm doorsnede volgens een gangbare werkwijze bewerkt.

Deze bewerking hield in dat er afwisselend coatingmateriaal (C1, Incotec) en bindmiddelvloeistof (SOL1, Incotec) werd toegevoegd, onder oplevering van pillen met een gelijke vorm en grootte (3,25 - 3,5 mm spleetzeef).

Vervolgens werden de pillen gedurende 1,5 uur bij 40°C gedroogd. 2000 ml van een commerciële coatingvloeistof (Disco Color Red L083, Incotec) werd, in een zuurkast bij kamertemperatuur, gemengd met 1143 g insecticidepoeder Gaucho 70 WS® (Bayer) en 2660 ml water. De batch van 1 miljoen droge pillen werd in een Pancoater (Ramacota 36) van 36 inch doorsnede volgens een gangbare werkwijze bewerkt. Deze bewerking hield in dat de coatingvloeistof gedurende het hele proces (120 min), met een luchtsput, langzaam over de pillen verdeeld werd, waarbij er continu gedroogd werd (droogtemperatuur = 55°C), onder oplevering van pillen zoals omschreven in figuur 2. Het insecticide bevindt zich in een dunne filmcoating laag aan de buitenzijde van de pil.

De hierboven beschreven pillen hebben een gehalte (gehaltebepaling werd uitgevoerd met een HPLC) van 98% imidacloprid, het actieve ingrediënt (a.i.) van de Gaucho-formulering, waarbij een distributieveriatiecoëfficiënt van 10% is gemeten.

Uit de geproduceerde Gaucho-pillen (800 g a.i./miljoen pillen) komt het insecticide, in water, op dezelfde wijze vrij als uit de pillen die zowel zaad als Gaucho (800 g a.i./miljoen pillen) in één pil bevatten (zie figuur 5).

Fig. 5 toont het vrijkomen van de actieve ingrediënt uit een levend zaadhoudende pil volgens de stand der techniek (doorgetrokken lijn) en uit een pil volgens de uitvinding (stippellijn) in water. Uitgezet is de recovery (%) tegen de tijd (minuten).

De zaadhoudende pillen en de geproduceerde Gaucho-pillen (800 g a.i./miljoen pillen), welke als afzonderlijke pillen zijn gezaaid (fig. 6), kiemen regelmatigiger dan de pillen die zowel levend zaad als Gaucho (800 g a.i./miljoen pillen) in één pil bevatten (zie fig. 7).

Bovenstaand voorbeeld kan ook op andere zaadsoorten worden toegepast o.a.:

- Tabak (*Nicotiana tabacum*) in de pilmaat 1,75-2,00 mm, met een dosering van 200 g imidacloprid/miljoen pillen.



- Suikerbiet (*Beta Vulgaris*) in de pilmaat 3,75-4,50 mm, met een dosering van 900 g imidacloprid/miljoen pillen.

## 5 Voorbeeld 2

Met een batch van 3 miljoen glaskogels werden pillen geproduceerd. De batch werd in een standaard pilleerpan (Vingerling's Machinefabriek B.V. te Rotterdam, Nederland) van 100 cm doorsnede volgens een gangbare werkwijze bewerkt. Deze bewerking hield in dat er afwisselend coatingmateriaal (C22, Incotec) en bindmiddelvloeistof (SOL1, Incotec) werd toegevoegd, onder oplevering van pillen met een gelijke vorm en grootte (1,50 - 1,75 mm spleetzeef).

Vervolgens werden de pillen gedurende 45 min. bij 60°C gedroogd. 31,5 ml van een commerciële coatingvloeistof (Disco Color Red L083, Incotec) werd, in een zuurkast bij kamertemperatuur, gemengd met 18,0 g insecticidepoeder Gaucho 70 WS® (Bayer) en 10,4 ml water. Een batch van 90.000 droge pillen werd in een rotostat-inrichting met een doorsnede van 30 cm (Marline, Norfolk, England) gebracht. Het mengsel van insecticide en coatingvloeistof werd via de standaard "spining disc" (diameter 6 cm) gedoseerd. Na 3 minuten draaien was het coatingmengsel homogeen over de pillen verdeeld en werden de pillen overgebracht in de standaard pilleerpan. Afwisselend werd er finishingmateriaal (F13, Incotec) en bindmiddelvloeistof (SOL1, Incotec) toegevoegd, onder oplevering van pillen met een gelijke vorm en grootte (2,00 - 2,25 mm spleetzeef).

Vervolgens werden de pillen gedurende 45 min. bij 60°C gedroogd onder oplevering van pillen zoals omschreven in figuur 4.

## Voorbeeld 3

35

345 g van een commerciële coatingvloeistof (Disco L126, Incotec) werd, in een zuurkast bij kamertemperatuur, gemengd met 107 g insecticidevloeistof Gigant (DowElanco) en 11,5 g fungicidevloeistof Rovral aquaflo (Rhone Poulenc). Een

batch van 1495 g bloemkoolzaden (*Brassica oleracea*) met een  
zaadfractie van 1,50-1,75 mmR werd door middel van een magne-  
tron (300W, 45 min., Samsung M935) dood gemaakt. De batch  
werd in een Pancoater (Ramacota 18) van 18 inch doorsnede  
5 volgens een gangbare werkwijze bewerkt. Deze bewerking hield  
in dat de coatingvloeistof gedurende het hele proces, met een  
luchtspruit, langzaam over de zaden verdeeld werd, waarbij er  
continu gedroogd werd (droogtemperatuur = 55°C), onder ople-  
vering van gefilmcoate zaden zoals omschreven in figuur 1.  
10 Het insecticide bevindt zich hierbij in een dunne filmcoat-  
laag aan de buitenzijde van het dode zaad.

De onderhavige uitvinding is niet beperkt tot de in  
de voorbeelden beschreven uitvoeringsvormen. Binnen de door  
de conclusies bepaalde beschermingsomvang kan deze op veler-  
15 lei wijze worden gevarieerd.

CONCLUSIES

1. Werkwijze voor het beschermen van te ontkiemen zaad met een pesticide, **met het kenmerk**, dat zaadhoudende pillen en pesticidehoudende pillen als afzonderlijke pillen gelijktijdig worden uitgezaaid.

5        2. Werkwijze volgens conclusie 1, **met het kenmerk**, dat de pesticidehoudende pillen in hoofdzaak dezelfde vorm en afmeting hebben als de zaadhoudende pillen.

10       3. Werkwijze volgens conclusie 1 of 2, **met het kenmerk**, dat de pesticidehoudende pillen een dosis pesticide bevatten die voldoende is voor één zaadkiem.

4. Werkwijze volgens een der voorgaande conclusies, **met het kenmerk**, dat de pesticidehoudende pillen een vulstof bevatten.

15       5. Werkwijze volgens een der voorgaande conclusies 1-4, **met het kenmerk**, dat de pesticidehoudende en zaadhoudende pillen een in hoofdzaak uniforme diameter hebben in het bereik van 0,5 - 5 mm.

6. Pesticidehoudende pil ten gebruike in combinatie met een zaadhoudende pil.

UITTREKSEL

De uitvinding heeft betrekking op een werkwijze voor het beschermen van te ontkiemen zaad met een pesticide, waarbij zaadhoudende pillen en pesticidehoudende pillen als afzonderlijke pillen gelijktijdig worden uitgezaaid. Volgens  
5 een voorkeursuitvoeringsvorm volgens de uitvinding hebben de pesticidehoudende pillen in hoofdzaak dezelfde vorm en afmeting als de zaadhoudende pillen en bevatten de pesticidehoudende pillen een dosis pesticide die voldoende is voor één zaadkiem. In het algemeen hebben de pesticidehoudende pillen  
10 een diameter in het bereik van 0,5 - 5 mm.

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>WO 800.146-</b>	<b>FOR FURTHER ACTION</b>		see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. <b>PCT/NL 00/ 00523</b>	International filing date (day/month/year) <b>24/07/2000</b>	(Earliest) Priority Date (day/month/year) <b>26/08/1999</b>	
Applicant  <b>INCOTEC INTERNATIONAL B.V.</b>			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

**4. With regard to the title,**



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

**PROTECTION OF GERMINATING SEED AND PILLS CONTAINING PESTICIDES**

**5. With regard to the abstract,**



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. The figure of the drawings to be published with the abstract is Figure No.**



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.



None of the figures.

## INTERNATIONAL SEARCH REPORT

International Application No

/NL 00/00523

A. CLASSIFICATION OF SUBJECT MATTER  
 IPC 7 A01N25/26 A01N25/00 A01C1/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 A01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, PAJ, EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CA 1 143 651 A (FISONS LTD) 29 March 1983 (1983-03-29) page 1, line 7 - line 12	6
Y	page 2, line 13 - line 23 page 3, line 8 - line 15 page 4, line 16 - line 23 page 7, line 21 - page 8, line 1	1-5
X	DE 43 43 176 A (BASF AG) 22 June 1995 (1995-06-22) page 2, line 41 - line 56	6
Y	page 3, line 60 - line 61 page 5, line 14 - line 15 page 8, line 19 - line 35	1-5



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*&\* document member of the same patent family

Date of the actual completion of the international search

23 November 2000

Date of mailing of the international search report

04/12/2000

Name and mailing address of the ISA

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Authorized officer

Lamers, W

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/NL 00/00523

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 044 518 A (SAKAUE OSAMU ET AL) 3 September 1991 (1991-09-03) column 2, line 60 - line 67 ----	1-5
A	WO 88 05625 A (HEID AG MASCHF) 11 August 1988 (1988-08-11) page 1, paragraph 2 page 1, paragraph 4 -----	1-6



# PC

## REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For Receiving Office use only

International Application No.

International Filing Date

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference  
(if desired) (12 characters maximum) WO 800.146-

<b>Box No. I TITLE OF INVENTION</b> A process for the protection of germinating seed and pesticide containing pill	
<b>Box No. II APPLICANT</b> <div style="display: flex; justify-content: space-between;"> <div style="width: 65%;"> <p><small>Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</small></p> <p>Incotec International B.V. Westeinde 107 1601 BL ENKHUIZEN The Netherlands</p> </div> <div style="width: 30%;"> <p><input type="checkbox"/> This person is also inventor.</p> <p>Telephone No.</p> <p>Facsimile No.</p> <p>Teleprinter No.</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <p><small>State (that is, country) of nationality:</small> NL</p> <p><small>State (that is, country) of residence:</small> NL</p> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <p><small>This person is applicant for the purposes of:</small></p> <p><input type="checkbox"/> all designated States</p> <p><input checked="" type="checkbox"/> all designated States except the United States of America</p> <p><input type="checkbox"/> the United States of America only</p> <p><input type="checkbox"/> the States indicated in the Supplemental Box</p> </div>	
<b>Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)</b> <div style="display: flex; justify-content: space-between;"> <div style="width: 65%;"> <p><small>Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</small></p> <p>Legro, Robert Jean De Gouw 6 1602 DN ENKHUIZEN The Netherlands</p> </div> <div style="width: 30%;"> <p><small>This person is:</small></p> <p><input type="checkbox"/> applicant only</p> <p><input checked="" type="checkbox"/> applicant and inventor</p> <p><input type="checkbox"/> inventor only (If this check-box is marked, do not fill in below.)</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <p><small>State (that is, country) of nationality:</small> NL</p> <p><small>State (that is, country) of residence:</small> NL</p> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <p><small>This person is applicant for the purposes of:</small></p> <p><input type="checkbox"/> all designated States</p> <p><input type="checkbox"/> all designated States except the United States of America</p> <p><input checked="" type="checkbox"/> the United States of America only</p> <p><input type="checkbox"/> the States indicated in the Supplemental Box</p> </div> <p><input type="checkbox"/> Further applicants and/or (further) inventors are indicated on a continuation sheet.</p>	
<b>Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE</b> <div style="display: flex; justify-content: space-between; margin-bottom: 5px;"> <p><small>The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:</small></p> <p><input checked="" type="checkbox"/> agent</p> <p><input type="checkbox"/> common representative</p> </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 65%;"> <p><small>Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)</small></p> <p>Kupecz, Arpád OCTROOIBUREAU LOS EN STIGTER B.V. Weteringschans 96 1017 XS AMSTERDAM The Netherlands</p> </div> <div style="width: 30%;"> <p>Telephone No. (31)20 6236832</p> <p>Facsimile No. (31)20 6260007</p> <p>Teleprinter No.</p> </div> </div> <div style="margin-top: 5px;"> <p><input type="checkbox"/> Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.</p> </div>	

**Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)**

*If none of the following sub-boxes is used, this sheet should not be included in the request.*

Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)*

Honkoop, Sijbert  
Maasdijk 182a  
2676 LC MAASDIJK  
The Netherlands

This person is:

- ☐ applicant only
- ☒ applicant and inventor
- ☐ inventor only *(If this check-box is marked, do not fill in below.)*

State *(that is, country)* of nationality:  
NL

State *(that is, country)* of residence:  
NL

This person is applicant for the purposes of:

- ☐ all designated States    ☐ all designated States except the United States of America    ☒ the United States of America only    ☐ the States indicated in the Supplemental Box

Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)*

This person is:

- ☐ applicant only
- ☐ applicant and inventor
- ☐ inventor only *(If this check-box is marked, do not fill in below.)*

State *(that is, country)* of nationality:

State *(that is, country)* of residence:

This person is applicant for the purposes of:

- ☐ all designated States    ☐ all designated States except the United States of America    ☐ the United States of America only    ☐ the States indicated in the Supplemental Box

Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)*

This person is:

- ☐ applicant only
- ☐ applicant and inventor
- ☐ inventor only *(If this check-box is marked, do not fill in below.)*

State *(that is, country)* of nationality:

State *(that is, country)* of residence:

This person is applicant for the purposes of:

- ☐ all designated States    ☐ all designated States except the United States of America    ☐ the United States of America only    ☐ the States indicated in the Supplemental Box

Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)*

This person is:

- ☐ applicant only
- ☐ applicant and inventor
- ☐ inventor only *(If this check-box is marked, do not fill in below.)*

State *(that is, country)* of nationality:

State *(that is, country)* of residence:

This person is applicant for the purposes of:

- ☐ all designated States    ☐ all designated States except the United States of America    ☐ the United States of America only    ☐ the States indicated in the Supplemental Box

☐ Further applicants and/or (further) inventors are indicated on another continuation sheet.

**Box No. V DESIGNATION OF STATES**

The following designations are here made under Rule 4.9(a) (mark the applicable check-boxes; at least one must be marked):

**Regional Patent**

- ☒ **AP ARIPO Patent:** GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, SD Sudan, SL Sierra Leone, SZ Swaziland, TZ United Republic of Tanzania, UG Uganda, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT
- ☒ **EA Eurasian Patent:** AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT
- ☒ **EP European Patent:** AT Austria, BE Belgium, CH and LI Switzerland and Liechtenstein, CY Cyprus, DE Germany, DK Denmark, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, SE Sweden, and any other State which is a Contracting State of the European Patent Convention and of the PCT
- ☒ **OA OAPI Patent:** BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, GW Guinea-Bissau, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other kind of protection or treatment desired, specify on dotted line)

**National Patent (if other kind of protection or treatment desired, specify on dotted line):**

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> <b>AE</b> United Arab Emirates                  | <input checked="" type="checkbox"/> <b>LR</b> Liberia                                   |
| <input checked="" type="checkbox"/> <b>AL</b> Albania                               | <input checked="" type="checkbox"/> <b>LS</b> Lesotho                                   |
| <input checked="" type="checkbox"/> <b>AM</b> Armenia                               | <input checked="" type="checkbox"/> <b>LT</b> Lithuania                                 |
| <input checked="" type="checkbox"/> <b>AT</b> Austria                               | <input checked="" type="checkbox"/> <b>LU</b> Luxembourg                                |
| <input checked="" type="checkbox"/> <b>AU</b> Australia                             | <input checked="" type="checkbox"/> <b>LV</b> Latvia                                    |
| <input checked="" type="checkbox"/> <b>AZ</b> Azerbaijan                            | <input checked="" type="checkbox"/> <b>MA</b> Morocco                                   |
| <input checked="" type="checkbox"/> <b>BA</b> Bosnia and Herzegovina                | <input checked="" type="checkbox"/> <b>MD</b> Republic of Moldova                       |
| <input checked="" type="checkbox"/> <b>BB</b> Barbados                              | <input checked="" type="checkbox"/> <b>MG</b> Madagascar                                |
| <input checked="" type="checkbox"/> <b>BG</b> Bulgaria                              | <input checked="" type="checkbox"/> <b>MK</b> The former Yugoslav Republic of Macedonia |
| <input checked="" type="checkbox"/> <b>BR</b> Brazil                                |   |
| <input checked="" type="checkbox"/> <b>BY</b> Belarus                               | <input checked="" type="checkbox"/> <b>MN</b> Mongolia                                  |
| <input checked="" type="checkbox"/> <b>CA</b> Canada                                | <input checked="" type="checkbox"/> <b>MW</b> Malawi                                    |
| <input checked="" type="checkbox"/> <b>CH and LI</b> Switzerland and Liechtenstein  | <input checked="" type="checkbox"/> <b>MX</b> Mexico                                    |
| <input checked="" type="checkbox"/> <b>CN</b> China                                 | <input checked="" type="checkbox"/> <b>NO</b> Norway                                    |
| <input checked="" type="checkbox"/> <b>CR</b> Costa Rica                            | <input checked="" type="checkbox"/> <b>NZ</b> New Zealand                               |
| <input checked="" type="checkbox"/> <b>CU</b> Cuba                                  | <input checked="" type="checkbox"/> <b>PL</b> Poland                                    |
| <input checked="" type="checkbox"/> <b>CZ</b> Czech Republic                        | <input checked="" type="checkbox"/> <b>PT</b> Portugal                                  |
| <input checked="" type="checkbox"/> <b>DE</b> Germany                               | <input checked="" type="checkbox"/> <b>RO</b> Romania                                   |
| <input checked="" type="checkbox"/> <b>DK</b> Denmark                               | <input checked="" type="checkbox"/> <b>RU</b> Russian Federation                        |
| <input checked="" type="checkbox"/> <b>DM</b> Dominica                              | <input checked="" type="checkbox"/> <b>SD</b> Sudan                                     |
| <input checked="" type="checkbox"/> <b>EE</b> Estonia                               | <input checked="" type="checkbox"/> <b>SE</b> Sweden                                    |
| <input checked="" type="checkbox"/> <b>ES</b> Spain                                 | <input checked="" type="checkbox"/> <b>SG</b> Singapore                                 |
| <input checked="" type="checkbox"/> <b>FI</b> Finland                               | <input checked="" type="checkbox"/> <b>SI</b> Slovenia                                  |
| <input checked="" type="checkbox"/> <b>GB</b> United Kingdom                        | <input checked="" type="checkbox"/> <b>SK</b> Slovakia                                  |
| <input checked="" type="checkbox"/> <b>GD</b> Grenada                               | <input checked="" type="checkbox"/> <b>SL</b> Sierra Leone                              |
| <input checked="" type="checkbox"/> <b>GE</b> Georgia                               | <input checked="" type="checkbox"/> <b>TJ</b> Tajikistan                                |
| <input checked="" type="checkbox"/> <b>GH</b> Ghana                                 | <input checked="" type="checkbox"/> <b>TM</b> Turkmenistan                              |
| <input checked="" type="checkbox"/> <b>GM</b> Gambia                                | <input checked="" type="checkbox"/> <b>TR</b> Turkey                                    |
| <input checked="" type="checkbox"/> <b>HR</b> Croatia                               | <input checked="" type="checkbox"/> <b>TT</b> Trinidad and Tobago                       |
| <input checked="" type="checkbox"/> <b>HU</b> Hungary                               | <input checked="" type="checkbox"/> <b>TZ</b> United Republic of Tanzania               |
| <input checked="" type="checkbox"/> <b>ID</b> Indonesia                             | <input checked="" type="checkbox"/> <b>UA</b> Ukraine                                   |
| <input checked="" type="checkbox"/> <b>IL</b> Israel                                | <input checked="" type="checkbox"/> <b>UG</b> Uganda                                    |
| <input checked="" type="checkbox"/> <b>IN</b> India                                 | <input checked="" type="checkbox"/> <b>US</b> United States of America                  |
| <input checked="" type="checkbox"/> <b>IS</b> Iceland                               |   |
| <input checked="" type="checkbox"/> <b>JP</b> Japan                                 | <input checked="" type="checkbox"/> <b>UZ</b> Uzbekistan                                |
| <input checked="" type="checkbox"/> <b>KE</b> Kenya                                 | <input checked="" type="checkbox"/> <b>VN</b> Viet Nam                                  |
| <input checked="" type="checkbox"/> <b>KG</b> Kyrgyzstan                            | <input checked="" type="checkbox"/> <b>YU</b> Yugoslavia                                |
| <input checked="" type="checkbox"/> <b>KP</b> Democratic People's Republic of Korea | <input checked="" type="checkbox"/> <b>ZA</b> South Africa                              |
|   | <input checked="" type="checkbox"/> <b>ZW</b> Zimbabwe                                  |
- Check-boxes reserved for designating States which have become party to the PCT after issuance of this sheet:
- ☐ .....
- ☐ .....

**Precautionary Designation Statement:** In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation (including fees) must reach the receiving Office within the 15-month time limit.)

Box No. VI PRIORITY CLAIM		<input type="checkbox"/> Further priority claims are indicated in the Supplemental Box.		
Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:		
		national application: country	regional application: regional Office	international application: receiving Office
item (1) 26-08-1999 26 August 1999	1012918	NL		
item (2)				
item (3)				

☒ The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of the present international application is the receiving Office) identified above as item(s): 1

\* Where the earlier application is an ARIPO application, it is mandatory to indicate in the Supplemental Box at least one country party to the Paris Convention for the Protection of Industrial Property for which that earlier application was filed (Rule 4.10(b)(ii)). See Supplemental Box.

### Box No. VII INTERNATIONAL SEARCHING AUTHORITY

Choice of International Searching Authority (ISA) (if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):

ISA / NL

Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority):

Date (day/month/year)

26-08-1999

Number

SN 33787 NL

Country (or regional Office)

NL

### Box No. VIII CHECK LIST; LANGUAGE OF FILING

This international application contains the following number of sheets:

request : 4

description (excluding sequence listing part) : 7

claims : 1

abstract : 1

drawings : 3

sequence listing part of description :

Total number of sheets : 16

This international application is accompanied by the item(s) marked below:

1. ☒ fee calculation sheet
2. ☐ separate signed power of attorney
3. ☐ copy of general power of attorney, reference number, if any:
4. ☐ statement explaining lack of signature
5. ☐ priority document(s) identified in Box No. VI as item(s):
6. ☐ translation of international application into (language):
7. ☐ separate indications concerning deposited microorganism or other biological material
8. ☐ nucleotide and/or amino acid sequence listing in computer readable form
9. ☒ other (specify): copy of search report

Figure of the drawings which should accompany the abstract: 1

Language of filing of the international application:

### Box No. IX SIGNATURE OF APPLICANT OR AGENT

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).

Amsterdam, July 20, 2000

  
Kupecz, Arpád

For receiving Office use only		2. Drawings:  <input type="checkbox"/> received:  <input type="checkbox"/> not received:
1. Date of actual receipt of the purported international application:		
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:		
4. Date of timely receipt of the required corrections under PCT Article 11(2):		
5. International Searching Authority (if two or more are competent): ISA /	6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid.	

For International Bureau use only
Date of receipt of the record copy by the International Bureau: